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ARIZONA LABOR MARKET INFORMATION NEWSLETTER

Vol. XI No. 12
December 1987

Unemployment Rate

Seasonally Adjusted
October*

ARIZONA	5.6%
Maricopa Co.	4.7%
Pima Co.	4.5%
UNITED STATES	6.0%

Consumer Price Index

National-September 1987
1967 - Base Year

Wage Earner/Clerical Worker - 339.1
% Chg. Yr. Ago 4.4

All Urban - 344.4
% Chg. Yr. Ago 4.3

Phoenix-3rd Qtr. 1987
1977 - Base Year

All Urban - 201.7
% Chg. Yr. Ago 4.1

Tucson-3rd Qtr. 1987
1st Qtr. 1983 - Base Qtr.

All Urban - 120.6
% Chg. Yr. Ago 3.7

* Preliminary

Arizona Work Force 2000

Arizona has experienced tremendous growth over the last few decades, developing from a rural agricultural-based economy into a dynamic industrial-based economy. The composition of Arizona's economy will continue to change, but the state's growth will continue to be vibrant as the year 2000 approaches. Important factors contributing to continued growth include:

- Expected strength of the U.S. economy between 1988 and 2000.
- Accelerated growth of service industries.
- Manufacturing employment maintaining its share of the Arizona economy despite its decline nationally.
- Steady increases in population creating an ample labor supply.

Under the most likely scenario for the U.S. economy, the key trends are: an improving trade balance due to further devaluation of the dollar and productivity gains in U.S. manufacturing, a declining government deficit, inflation continuing at moderate rates, and increasing disposable income.

Economic growth depends on an improvement in the trade balance. The declining dollar has invigorated export growth and muffled import growth. Increasing prices of import goods have caused consumers to curtail their purchases, while the export market has become more lucrative for domestic

Arizona Department of Economic Security
— Moving People Toward Self-Sufficiency

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producers as the dollar drops. The trade balance will become more favorable as the value of the dollar is projected to continue its decline relative to other currencies. This improved trade position will vary greatly industry to industry. In Arizona, the manufacturing industry will see the greatest gains from the rebound in U.S. exports.

The trend of strong productivity growth in manufacturing observed recently is expected to continue through the year 2000. The productivity growth rate for the next decade is projected to be double the rate over the last decade. Competition with exports for market share, both here and abroad, has induced producers to improve quality and productivity. Despite the drop in the dollar and the consequent increase in exports, U.S. manufacturers must continue to increase productivity to regain and maintain their market share to ensure a reduction in the trade deficit.

In the near term, the federal deficit is not expected to decline. Beyond 1990, with changes in fiscal policy, economists predict the federal deficit will edge downward. Because the spending cuts of the 1986 tax laws have failed to shrink the deficit, increased taxes will be likely under the new administration.

Implementing the "correct" fiscal policy will be more difficult in the future because of the growing interdependencies between the U.S. and international economies. The United States cannot raise taxes without considering the tax policies of other countries. To remain competitive in the world market, U.S. tax rates cannot be greater than rates in other countries over an extended period of time. Also, the United States (as well as other governments) will be required to raise revenues from less mobile tax bases due to the mobility of capital and labor between countries. Given these conditions, experts indicate the most likely revenue sources for the federal government are consumption taxes. Raising consumption taxes will reduce the deficit and help the savings-investment imbalance without aggravating the trade balance. This occurs because consumption taxes encourage savings and investment while discouraging consumption. The United States will be producing more than it consumes, helping the trade balance.

If the federal deficit declines, the country should see decreasing interest rates and increasing consumer confidence. These two factors will further strengthen the expanding economy.

The outlook for inflation and disposable income is also favorable. The average inflation rate over the next ten years is anticipated to be lower than the previous ten years. In the short term, however, inflation is expected to increase. Overall, prices should not grow much faster than 5 percent before declining in 1990.

There are risks to the inflation forecast such as oil price shocks from the volatile situation in the Middle East, import inflation as the dollar declines, and escalating wages.

Disposable income will increase steadily through the 1990s, but at a slightly slower rate than in the 1980s. The actual growth rate will depend on the fiscal policy program initiated by the new administration.

With a healthy U.S. economy, the outlook for Arizona is excellent. Historically, Arizona outperforms the national economy

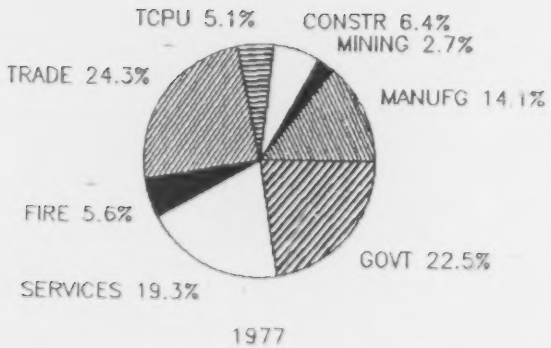
in expansionary periods. (Refer to the graphs on page 4.) Therefore, the state is projected to maintain strong economic growth through 2000, with overall wage and salary employment growing around 4 percent annually. Arizona's relatively strong population growth will strengthen the construction industry and also fuel growth in trade and services. Employment in mining will actually decline, but this does not mean output will drop. The mining industry is becoming more capital intensive and, in the process, reducing employment levels while maintaining output. The industries with the strongest growth potential are manufacturing and services.

Nationally, manufacturing employment and its share of the economy are projected to decline over the next decade-and-a-half. These decreases will be caused by productivity gains in manufacturing and growth in other sectors of the economy. Despite production increases, the number of manufacturing jobs will decline as productivity growth outpaces output growth. Also, as the output of other sectors grows, manufacturing's share of the economy will fall. Even with the drop in the value of the dollar and the growing competitiveness of American manufacturing firms in world markets, manufacturing is unlikely to give a big boost to U.S. GNP or employment over the next 13 years.

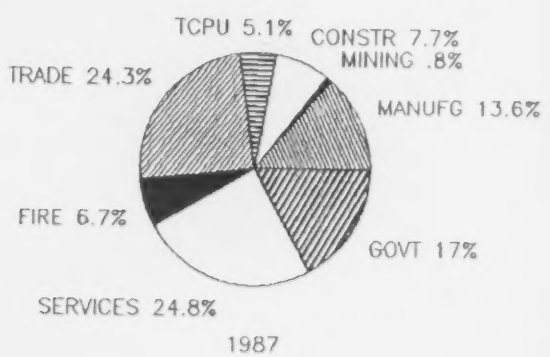
In Arizona, on the other hand, manufacturing employment and its share of total employment are expected to increase through the year 2000. The state's manufacturing strength stems from its large high tech base. About half of Arizona's manufacturing employment is in high tech industries such as computers, aerospace, and electronic components. Nationally, high tech firms maintain a much smaller share of manufacturing employment, and heavy manufacturing a larger share of employment, than in Arizona. Even though high tech employment excluding aerospace) and output are anticipated to increase through 2000 in the United States, this will not offset the decline in heavy manufacturing employment.

The outlook for the semiconductor portion of high tech manufacturing in Arizona is excellent through 2000. With the decline in the dollar, firms are becoming more competitive and, as a result, their exports

ARIZONA EMPLOYMENT SHARES BY INDUSTRY, 1977 – 1987

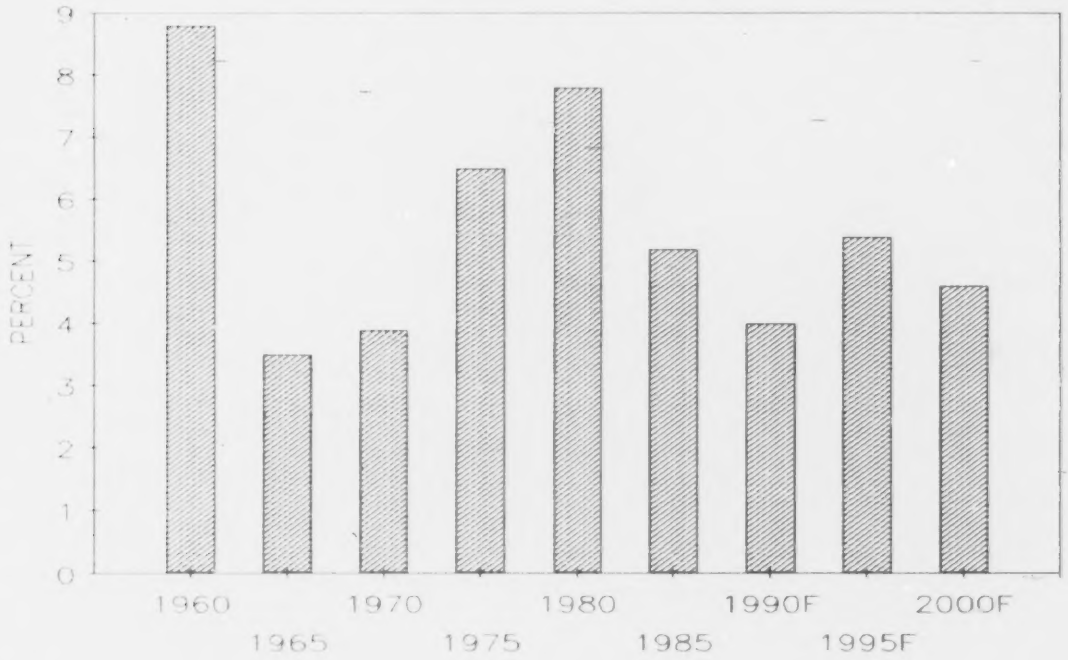


1977

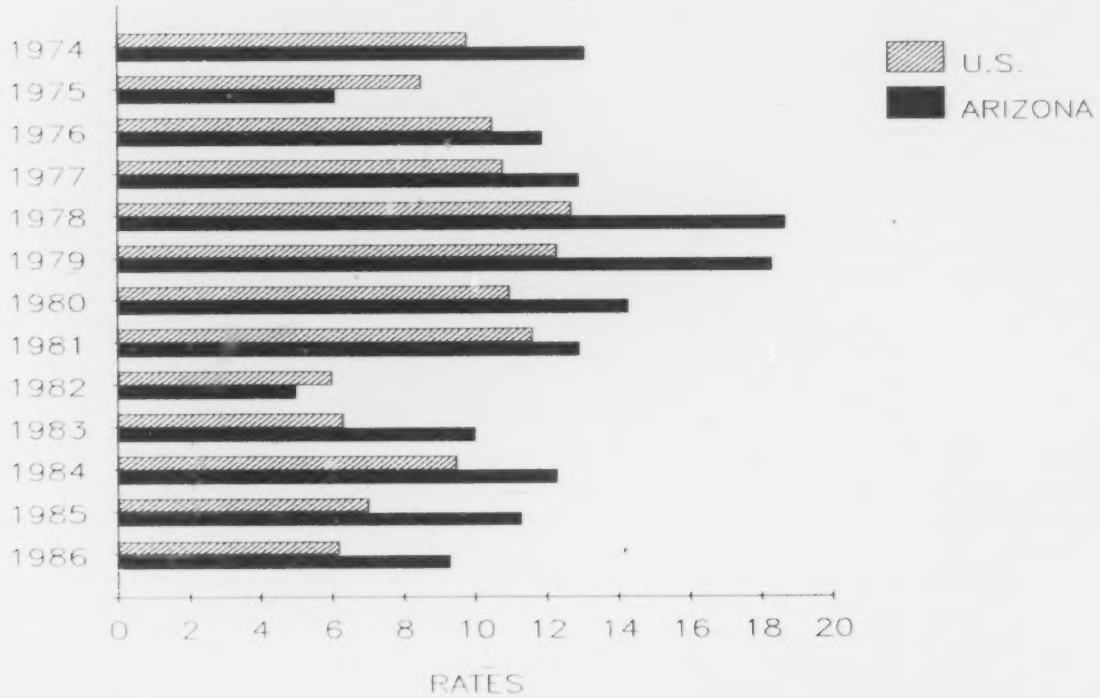


1987

ARIZONA WAGE AND SALARY EMPLOYMENT
AVERAGE ANNUAL GROWTH RATES
1960 – 2000



U.S. VERSUS ARIZONA
PERSONAL INCOME GROWTH RATES
1974 – 1986



are increasing. As the industry climbs out of its recent slump and expands output, firms will hire more workers. High tech plants in Arizona are likely to be among the first to gear up as they already have the plant capacity and the state has an experienced and growing labor force.

The picture for the aerospace component of Arizona's high tech manufacturing is not as optimistic. Military spending has slowed recently, causing cutbacks in the defense-related aerospace industry. It is likely that this trend will continue, although with a new administration coming into office in 1989, it is difficult to predict what direction this industry will take.

Nearly 150,000 manufacturing jobs will be created in Arizona between now and the year 2000. With virtually all of the manufacturing output exported out of the state, the continued growth of this sector gives an extra boost to the state's economy.

Mirroring the U.S. economy, the strongest employment growth in Arizona will occur in the service industries. Over 300,000 new service jobs will be created in Arizona between now and the year 2000. Most will be in the health and business-related fields. The gain in health service jobs is a result of population growth and the aging of the population. As the population ages, it will require more medical care. Also, the proliferation of outpatient care centers and health maintenance organizations is creating additional health service jobs. Business support services such as data processing, personnel services, and temporary agencies are expected to lead the business service industries. In addition to business and health services, household-related services will grow as the labor force participation rate of women climbs.

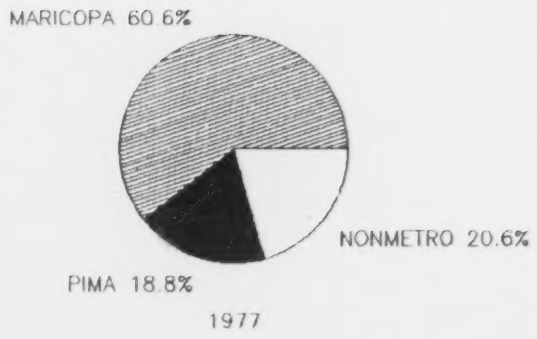
Historically, service occupations have been low-skilled, low-wage positions, but this is changing. The skill level required for service-sector jobs has and will continue to increase. Jobs in this fast-growing industry will require more education as jobs become more sophisticated and demanding. The service occupations which require the most education will be the fastest growing. In Arizona, service occupations with high growth potential are computer programming, nursing, medical technology, and personnel management.

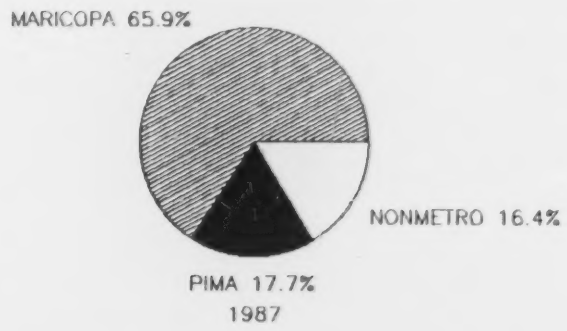
Healthy national and state economies will boost tourism and tourist-related employment in Arizona. As incomes grow and the value of the dollar remains low, foreign and out-of-state visitors will be attracted to the Grand Canyon and destination resorts in Phoenix and Tucson. Increased recreational travel within the state will bring tourist dollars and employment to the White Mountain and Colorado River areas. Occupational opportunities will be created for retail clerks, food service workers, and hotel personnel, among others.

While the job outlook for the state as a whole is bright, the rural areas could be overshadowed by the major metropolitan areas. If current growth trends continue, Phoenix and Tucson will receive over 80 percent of the new jobs created between now and 2000. However, the economies of the nonmetropolitan counties are becoming more diversified, reducing the disparity between the rural and urban counties. For example, Yuma County is becoming less reliant on the volatile agriculture industry as its manufacturing base grows. Yuma County is an attractive location for firms with its comparatively low wages, access to Interstate 8, and proximity to California and Mexico. The county's location on the Mexican border also makes twin plants a possibility for manufacturers. Despite slow employment growth in recent years, the outlook is good through the year 2000. Coconino is another nonmetropolitan county which is diversifying, increasing its manufacturing base to become less dependent on the seasonal tourism industry. Efforts should be made to attract industry to all areas of the state to ensure balanced growth.

In addition to the expanding economy, changes in population and the demographic composition of the labor force will have a profound impact on employment and jobs through the year 2000. The effects of these changes will be more prevalent in the nation as a whole than in Arizona.

WAGE AND SALARY EMPLOYMENT SHARES METRO VERSUS NONMETRO 1977 – 1987





Over the next decade and a half, the U.S. population is projected to grow at a rate of 1 percent or less per year. This means that the nation's population growth will be the slowest since the Depression. The projected declining population growth rate reflects an anticipated drop in births in the United States.

In Arizona, on the other hand, the population is expected to grow between 2.5 and 4.0 percent annually. The state's healthy population growth will continue to be fueled by strong in-migration. Job opportunities will be the biggest factor attracting people to Arizona--over 60 percent of the migration into Arizona during the next 13 years will be employment-related.

The two primary factors that determine labor force growth are changes in the population and in labor force participation rates. As stated above, Arizona's population growth will be much stronger than the nation's. This growth, combined with the increasing labor force participation rates of women and minorities, will account for annual labor force increases of about 4 percent. The nation's labor force is projected to increase at a rate of 1 percent annually through 2000. Arizona's labor force growth will get a lift from the growth in the number of young workers. In Arizona, the number of younger workers will grow between 2 and 3 percent annually over the next 13 years. While the growth of younger workers in Arizona has slowed from previous years, the number of workers in the 16-24 age group in the United States is expected to decline 8 percent by 2000. Arizona should have sufficient labor supply to fill entry-level positions and be attractive to firms interested in relocating.

Arizona's work force in the year 2000 will contain larger shares of women and minorities. This is also the result of the climbing labor force participation rates of these groups and the growing share of minorities in the population. Arizona's trend is consistent with the nation's. Traditionally, women and minorities tend to hold low-skill jobs with low pay. While the slower growing total work force and expanding job opportunities might be expected to improve opportunities for these workers, the new jobs being created in the economy will require more technological expertise than the jobs that exist today. Because women and minority workers are, in

general, less likely to have had satisfactory schooling and on-the-job training, they may be prevented from taking advantage of these future opportunities.

With relatively slower population growth and rapid growth in high-skill jobs, it will be a challenge to maintain the necessary labor force. Maintaining an ample labor supply in which workers have the education and skills that match new jobs will ensure continued economic expansion. If workers' skills do not match those required in new jobs, economic growth will slow. Youth, women, and Hispanics are three key groups that can help Arizona meet the challenge of creating a large and skilled work force.

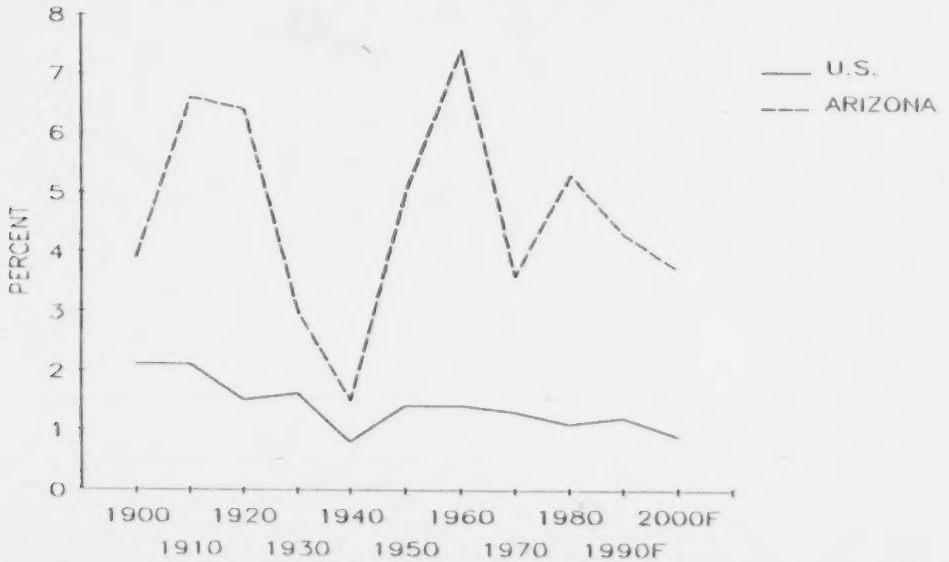
Arizona will have the good fortune of a growing youth population to take over entry-level positions vacated by "baby boomers" progressing in their careers. The relatively large supply of jobs that will be available for these younger workers should lower this group's high unemployment rate. However, the unemployment rate will only drop if employers find these workers suitable for jobs and hire them. To meet the needs of employers, youth must be encouraged to remain in school. The high school dropout rate in Arizona is very high. Economic progress will be hindered if the rate is not lowered in the future because youth will be a vital portion of a slower growing labor force. Traditionally, dropouts have the most difficult time finding employment, and this problem will be exacerbated in the future with new jobs requiring more skills.

In addition to keeping youth in school, schools must raise standards and revise curricula to prepare students for the work force and the higher skill levels that will be required. The state, employers, and individuals will all benefit from an educated and skilled youth labor supply.

Over the next decade-and-a-half, women will continue to enter the labor force in large numbers. It is estimated that 47 percent of the work force will be women and 61 percent of women will work.

Much of the growth in the number of women in the work force is due to the increased labor force participation of women with small children. In 1960, only 11 percent of U.S. women with young children worked; today, that number has grown to 52 percent. In less than 20 years, the pattern of

U.S. VERSUS ARIZONA POPULATION GROWTH RATES, 1900 – 2000 ANNUAL AVERAGES



employment in the United States has changed drastically, from one in which most married women stayed home to one in which nearly everyone is paid to work. Because so much of this change has occurred so rapidly, society has not adjusted to all of the implications of the large increase of women in the labor force. Because women are and will continue to be a vital part of the work force, there is a need to make it easier for them to stay in the work force and encourage others to enter. More flexible working hours and quality day care at the work place are two solutions.

While women have recently been making large gains in the share of managerial and professional positions they hold, they continue to be concentrated in the traditionally female occupations which pay less than men's jobs. To prepare these women for the jobs of the future, they will also need education and training to get into higher-skilled and higher-paid positions. The earnings differential between men's and women's wages has begun to narrow, and this trend should continue through the year 2000.

Hispanics, Arizona's largest minority group, have been the fastest growing segment of the population. Typically, Hispanics have held low-skill/low-wage jobs or high-wage blue collar positions. Unfortunately, the number of these blue collar positions is declining. Training and education will also be the key to keeping Hispanics in the labor force and helping them reach income parity with the rest of the work force. Traditionally, Hispanics have been more likely to drop out of school. Reasons behind the high Hispanic dropout rate are academic and behavioral problems, language barriers, and financial problems. Bilingual and bicultural programs could help resolve some of the academic and behavioral problems and remove some of the language barriers. Also, economic assistance programs could help some Hispanic families keep their children in school. Reducing the dropout rate is the first step to increasing Hispanics' job and income potential. Hispanics will make up a large portion of the labor force in the future, and that future labor force will require training in new technologies. Arizona's standard of living may be threatened if greater investment in Hispanics is not made today.

Education and training will, undoubtedly, be important for all groups in the labor force. Over 50 percent of new jobs are expected to require some college education, creating great opportunities for anyone with some college. On the other hand, without education or training for high-skill jobs, there will be growing economic inequality.

For Arizona, the economic outlook is bright. Between now and the year 2000, over one million jobs will be created compared to 665,000 in the 1975 though 1987 period. The job growth will come from many sources. As the economy improves, Arizona's existing firms will expand creating job opportunities. The healthy economy along with the Arizona business climate will attract new employers to the state, adding even more jobs. For two years in a row, Inc. Magazine has ranked Arizona first among the 50 states in terms of business climate. The job growth will attract in-migrants, and, as the population grows, demand will increase for services and construction, creating employment opportunities in these areas. Therefore, the future sees job growth throughout the Arizona economy with services, manufacturing, and construction showing the strongest growth.

Despite the strong growth in job opportunities, the labor force must be prepared to undertake the more highly-skilled jobs that will exist in the future for economic growth to be sustained. Because the labor force will be growing at a slower rate, state and local governments, as well as the private sector, must implement policies that will encourage minorities, youth, and women to acquire necessary skills to enter and remain in the labor force. An abundant, well-educated, and skilled labor force is the key to economic growth in the future.

Rosemary Reardon

The Arizona Labor Force in October

In October, the month that brought us "black Monday" at the stock exchanges, Arizona's unemployment rate eased down another tenth of a point. Twelve hundred dropped from the unemployment rolls, and nearly 26,000 residents acquired new jobs. Arizona's newly employed owe their good fortune to the season; certainly, not to the turn of the stock market.

Thanks to gains by government, services, and retail trade, 14,800 wage and salary jobs were created in October. More than half of those (8,400) were additional staff and work-study students hired by colleges, universities, and the rest of the school system.

Services registered a better-than-average October gain (4,000) principally by hotels, business services, amusements, and miscellaneous services. That speaks well of the expectations of the tourist industry for this winter season. On the other hand, retail trade had the weakest October gain since 1982, suggesting expectations by department and apparel stores of an anemic season.

The construction industry's continuing downward direction was more in keeping with the tone of the stock market crash. Construction employment has fallen in 13 of the last 15 months. At 101,400 in October, it is at a level not seen since December 1984. From peak construction employment in July 1986 of 117,500, construction has declined by 16,100 jobs, a shrinkage of 13.7 percent. The prognosis for construction is also poor.

Construction's future depends on the population's perception of their financial well-being. Since the stock market crash, many people's perception of their financial health has turned negative. Others are going to wait and see what the significance of the crash is. The effect of these assessments may cause large numbers of people to postpone purchases of large-ticket items. House purchases could suffer the greatest declines. If they do, construction industry employment will continue to spiral downward.

Other current circumstances hold out some hope for the construction industry. Mortgage interest rates are gradually declining as the Federal Reserve eases up on the money supply in reaction to the falling stock market. Some home buyers may consider this a window of opportunity to buy a house before inflation accelerates from the falling value of the dollar relative to other currencies, and subsequent action by the Federal Reserve to buoy up the dollar by raising interest rates.

One might expect some growth of manufacturing employment as the dollar falls and America's products become more competitive, but manufacturing lost 500 jobs in October. Manufacturing's employment level is now 1,100 below the August 1986 peak when 187,200 were employed.

The remaining industries were flat in October with the notable exception of transportation, communications, and public utilities (TCPU). TCPU employment increased 800, and three out of four of those jobs were in the transportation component. This, too, was normal seasonal growth primarily attributable to hiring by package delivery services in anticipation of the Christmas rush. Although October mining employment was also flat, the outlook for the industry has improved. The price of copper has risen above $1.00 a pound which raises the potential for profit. Nevertheless, any employment increases will be small, because copper mining companies now have more labor-efficient methods for extracting the metal.

The near-term employment outlook depends on how freely consumers will spend during the Christmas season in the aftermath of the stock market decline. Consumer psychology, monetary policy actions of the Federal Reserve, and fiscal actions of Congress will all play major roles in the economy's direction from here.

Ron Simon

October 1987 (in thousands)

	ARIZONA					MARICOPA COUNTY					PIMA COUNTY				
	Oct.* 1987	Sep. 1987	Oct. 1986	-- Amt Change -- Sep. to Oct.	1986 to 1987	Oct.* 1987	Sep. 1987	Oct. 1986	-- Amt Change -- Sep. to Oct.	1986 to 1987	Oct.* 1987	Sep. 1987	Oct. 1986	-- Amt Change -- Sep. to Oct.	1986 to 1987
TOTAL CIVILIAN LABOR FORCE**	1658.4	1633.7	1610.8	+24.7	+47.6	1034.7	1016.8	996.8	+17.9	+37.9	317.9	313.1	312.8	+4.8	+5.1
Total Unemployment	91.2	92.4	109.0	-1.2	-17.8	48.2	47.8	56.6	+0.4	-8.4	14.5	14.3	18.0	+0.2	-3.5
Rate	5.5	5.7	6.8	---	---	4.7	4.7	5.7	---	---	4.6	4.6	5.8	---	---
Rate (Sea. Adj.)***	5.6	5.7	6.9	---	---	4.7	4.7	5.7	---	---	4.5	4.6	5.7	---	---
Total Employment	1567.2	1541.3	1501.8	+25.9	+65.4	986.5	969.0	940.2	+17.5	+46.3	303.4	298.8	294.8	+4.6	+8.6

The Above Labor Force Statistics Should Not Be Used for Economic Assistance Programs

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY PLACE OF WORK															
TOTAL WAGE AND SALARY	1384.7	1370.5	1364.3	+14.2	+20.4	913.8	903.1	896.1	+10.7	+17.7	244.4	241.9	242.9	+2.5	+1.5
Manufacturing	186.1	186.6	186.5	-0.5	-0.4	135.1	135.2	133.4	-0.1	+1.7	30.3	30.5	31.3	-0.2	-1.0
Durable Goods	144.9	144.6	145.6	+0.3	-0.7	106.5	106.1	105.7	+0.4	+0.8	25.0	25.0	26.0	+0.0	-1.0
Stone, Clay and Glass	7.6	7.6	8.1	+0.0	-0.5	4.7	4.8	5.3	-0.1	-0.6					
Primary and Fabricated Metals	15.6	15.7	16.2	-0.1	-0.6	10.4	10.5	10.8	-0.1	-0.4					
Primary Metals	7.4	7.3	7.6	+0.1	-0.2										
Fabricated Metals	8.2	8.4	8.6	-0.2	-0.4										
Machinery	64.7	64.5	65.0	+0.2	-0.3	51.7	51.4	51.7	+0.3	+0.0					
Other Durable Goods	57.0	56.8	56.3	+0.2	+0.7	39.7	39.4	37.9	+0.3	+1.8					
Aircraft and Missiles	26.6	26.7	27.4	-0.1	-0.8										
Lumber and Wood Products (Except Furniture)	8.4	8.3	8.0	+0.1	+0.4										
All Other Durable Goods	22.0	21.8	20.9	+0.2	+1.1										
Nondurable Goods	41.2	42.0	40.9	-0.8	+0.3	28.6	29.1	27.7	-0.5	+0.9	5.3	5.5	5.3	-0.2	+0.0
Food and Kindred Products	9.4	9.4	9.5	+0.0	-0.1	6.2	6.2	6.2	+0.0	+0.0					
Apparel	4.3	4.4	4.7	-0.1	-0.4	3.1	3.1	3.0	+0.0	+0.1					
Printing and Publishing	16.1	16.2	15.4	-0.1	+0.7	11.3	11.3	10.8	+0.0	+0.5					
All Other Nondurable Goods	11.4	12.0	11.3	-0.6	+0.1	8.0	8.5	7.7	-0.5	+0.3					
Mining and Quarrying	11.2	11.2	10.9	+0.0	+0.3	0.6	0.6	0.6	+0.0	+0.0	1.7	1.7	1.6	+0.0	+0.1
Copper Mining	8.5	8.5	8.2	+0.0	+0.3										
Other Mining and Quarrying	2.7	2.7	2.7	+0.0	+0.0										
Construction	101.4	102.7	113.4	-1.3	-12.0	68.1	68.8	77.7	-0.7	-9.6	20.3	20.6	22.2	-0.3	-1.9
Trans., Communications, and Public Utilities	71.4	70.6	68.1	+0.8	+3.3	48.5	48.0	45.5	+0.5	+3.0	9.9	9.8	9.8	+0.1	+0.1
Transportation	32.6	32.0	31.4	+0.6	+1.2	22.5	22.1	21.2	+0.4	+1.3	4.8	4.7	4.9	+0.1	-0.1
Communications and Public Utilities	38.8	38.6	36.7	+0.2	+2.1	26.0	25.9	24.3	+0.1	+1.7	5.1	5.1	4.9	+0.0	+0.2
Trade	334.1	331.8	327.5	+2.3	+6.6	228.2	226.4	223.3	+1.8	+4.9	54.8	54.6	54.4	+0.2	+0.4
Wholesale Trade	64.1	63.9	63.5	+0.2	+0.6	51.2	51.2	51.0	+0.0	+0.2	7.7	7.5	7.4	+0.2	+0.3
Retail Trade	270.0	267.9	264.0	+2.1	+6.0	177.0	175.2	172.3	+1.8	+4.7	47.1	47.1	47.0	+0.0	+0.1
General Merchandise and Apparel	44.1	43.2	42.4	+0.9	+1.7	29.3	28.5	27.4	+0.8	+1.9	7.1	7.2	7.4	-0.1	-0.3
Food Stores	43.8	42.8	41.3	+1.0	+2.5	28.6	27.9	27.0	+0.7	+1.6	7.1	7.0	6.9	+0.1	+0.2
Automotive and Service Stations	32.0	32.1	31.8	-0.1	+0.2	20.1	20.2	20.3	-0.1	-0.2	5.5	5.4	5.4	+0.1	+0.1
Eating and Drinking Places	94.4	94.3	93.3	+0.1	+1.1	60.4	60.1	59.5	+0.3	+0.9	17.7	17.8	17.7	-0.1	+0.0
Other Retail Trade	55.7	55.5	55.2	+0.2	+0.5	38.6	38.5	38.1	+0.1	+0.5	9.7	9.7	9.6	+0.0	+0.1
Finance, Insurance, and Real Estate	91.5	91.3	90.5	+0.2	+1.0	72.2	71.9	71.5	+0.3	+0.7	12.6	12.8	12.5	-0.2	+0.1
Services and Miscellaneous	342.7	338.7	330.7	+4.0	+12.0	231.6	228.6	221.9	+3.0	+9.7	63.8	62.4	61.7	+1.4	+2.1
Hotels and Other Lodging Places	35.3	34.0	32.3	+1.3	+3.0	19.9	18.8	17.8	+1.1	+2.1	6.3	5.9	5.8	+0.4	+0.5
Business Services	75.5	74.9	73.6	+0.6	+1.9	60.7	60.3	58.9	+0.4	+1.8	11.1	10.9	11.1	+0.2	+0.0
Health Services	84.9	84.6	81.7	+0.3	+3.2	55.7	55.5	53.3	+0.2	+2.4	19.1	17.9	17.4	+0.2	+0.7
Other Services	147.0	145.2	143.1	+1.8	+3.9	95.3	94.0	91.9	+1.3	+3.4	28.3	27.7	27.4	+0.6	+0.9
Government	246.3	237.6	236.7	+8.7	+9.6	129.5	123.6	122.2	+5.9	+7.3	51.0	49.5	49.4	+1.5	+1.6
Federal	42.6	43.0	41.8	-0.4	+0.8										
State and Local	203.7	194.6	194.9	+9.1	+8.8										
School	120.7	112.3	115.2	+8.4	+5.5										

* Preliminary
** Labor force, unemployment, and employment are reported by place of residence.
*** Normal seasonal variations have been eliminated to reflect underlying economic trends.
NOTE Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Arizona Labor Force and Employment

October 1987 (in thousands)

-- Prepared by Arizona Department of Economic Security, Research Administration (CPS, 1/87)

Nonmetropolitan Counties
Labor Force and Employment
October 1987

	Apache	Cochise	Coconino	Gila	Graham	Green-lee	La Paz
TOTAL CIVILIAN LABOR FORCE*.	15,325	36,850	42,425	13,000	8,525	3,200	4,700
Total Unemployment	1,825	2,950	2,975	1,450	800	325	325
Rate	11.9%	8.0%	7.0%	11.2%	9.4%	10.2%	6.9%
Rate (Seas. Adj.)**. . . .	12.5%	8.3%	7.6%	11.2%	9.7%	10.5%	-INA-
Total Employment	13,500	33,900	39,450	11,550	7,725	2,875	4,375
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS							
TOTAL WAGE AND SALARY. . . .	15,575	24,575	37,450	10,425	5,000	2,875	2,975
Manufacturing.	875	1,500	2,775	1,475	200	75	100
Mining and Quarrying	25	100	75	1,275	0	1,575	0
Construction	1,325	1,175	1,950	275	200	175	175
Trans., Comm., & Pub. Util..	2,000	1,450	2,450	425	175	25	100
Trade.	1,425	5,500	8,400	2,175	1,300	225	1,025
Fin., Insur., & Real Estate.	300	650	850	275	125	25	100
Services and Miscellaneous .	4,575	4,025	9,375	1,925	850	150	675
Government	5,050	10,175	11,575	2,600	2,150	625	800

	Mohave	Navajo	Pinal	Santa Cruz	Yavapai	Yuma
TOTAL CIVILIAN LABOR FORCE*.	30,550	26,850	38,150	9,925	37,025	39,200
Total Unemployment	2,075	2,600	3,400	1,575	1,900	6,250
Rate	6.8%	9.7%	8.9%	15.9%	5.1%	15.9%
Rate (Seas. Adj.)**. . . .	6.9%	10.4%	9.0%	13.6%	5.5%	-INA-
Total Employment	28,475	24,250	34,750	8,350	35,125	32,950
THE ABOVE LABOR FORCE STATISTICS SHOULD NOT BE USED FOR ECONOMIC ASSISTANCE PROGRAMS						
TOTAL WAGE AND SALARY. . . .	20,400	20,075	29,150	8,250	23,800	26,025
Manufacturing.	2,650	1,925	3,675	1,275	2,475	1,775
Mining and Quarrying	425	1,125	3,625	0	600	50
Construction	1,400	1,050	1,175	325	2,075	1,675
Trans., Comm., & Pub. Util..	1,150	1,750	1,150	500	875	925
Trade.	5,875	3,800	4,850	3,025	6,325	7,275
Fin., Insur., & Real Estate.	900	375	775	300	950	1,025
Services and Miscellaneous .	4,300	4,875	4,075	1,250	5,100	6,075
Government	3,700	5,175	9,825	1,575	5,400	7,225

*Adjusted to the Current Population Survey (CPS) to reflect place of residence.
**Seasonal adjustment not applicable for economic assistance programs.

NOTE--Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Prepared in conjunction with the U.S. Department of Labor, Bureau of Labor Statistics.

Arizona Labor Force and Employment for Economic Assistance Programs October 1987

County	Civilian Labor Force	Employment	Unemployment	Rate
Statewide	1,658,388	1,567,228	91,160	5.5%
Apache	15,335	13,512	1,823	11.9
Cochise	36,839	33,892	2,947	8.0
Coconino	42,448	39,462	2,986	7.0
Gila	12,993	11,539	1,454	11.2
Graham	8,538	7,730	808	9.5
Greenlee	3,216	2,880	336	10.4
La Paz	4,703	4,372	331	7.0
Maricopa	1,034,716	986,545	48,171	4.7
Mohave	30,541	28,466	2,075	6.8
Navajo	26,848	24,243	2,605	9.7
Pima	317,926	303,422	14,504	4.6
Pinal	38,140	34,752	3,388	8.9
Santa Cruz	9,907	8,342	1,565	15.8
Yavapai	37,037	35,132	1,905	5.1
Yuma	39,201	32,939	6,262	16.0

These figures are the only official BLS labor statistics to be used for revenue sharing purposes. They are not designed to be used as economic indicators. Note: Series for Yuma and La Paz counties start January 1983. Data are not comparable to any past series.

Arizona Unemployment Insurance Activities September 1987

	September 1987	August 1987	September 1986	% Change From One Year Ago
Claimants Served*	29,105	33,970	32,515	-10.5%
Average Weeks Unemployed**	9.4	9.5	9.6	-1.5%
Benefits Paid*	$ 11,282,032	$ 12,354,841	$ 11,400,977	-1.0%
Trust Fund Balance	$412,604,195	$422,578,042	$381,843,786	8.1%

*All Programs **UI Only

Estimated Hours and Earnings of Production Workers in Selected Industries Arizona

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	OCT.* 1987	SEP. 1987	OCT. 1986	OCT.* 1987	SEP. 1987	OCT. 1986	OCT.* 1987	SEP. 1987	OCT. 1986
FOR THE STATE OF ARIZONA									
Manufacturing	408.03	402.40	411.18	40.6	40.2	41.2	10.05	10.01	9.98
Aircraft & Missiles	552.94	529.94	INA	43.3	42.6	INA	12.77	12.44	INA
Food & Kindred Products	382.05	403.52	408.20	41.8	42.7	42.3	9.14	9.45	9.65
Primary Metals	509.76	472.55	484.90	37.9	36.1	39.2	13.45	13.09	12.37
Machinery	396.58	388.83	377.06	39.5	39.0	39.9	10.04	9.97	9.45
Copper Mining	510.82	503.66	495.16	41.7	40.1	39.9	12.25	12.56	12.41
Construction	423.26	408.42	437.18	36.3	35.3	36.8	11.66	11.57	11.88
Utilities	594.64	577.60	605.87	41.7	40.0	43.0	14.26	14.44	14.09
Retail Trade**	245.16	256.46	236.16	32.3	33.7	32.0	7.59	7.61	7.38
Wholesale Trade	392.34	386.31	383.66	39.0	39.1	40.3	10.06	9.88	9.52

Estimated Hours and Earnings of Production Workers in Selected Industries Maricopa County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	OCT.* 1987	SEP. 1987	AUG. 1987	OCT.* 1987	SEP. 1987	AUG. 1987	OCT.* 1987	SEP. 1987	AUG. 1987
FOR MARICOPA COUNTY									
Manufacturing	466.01	435.48	438.48	41.8	41.2	41.8	10.67	10.57	10.49
Construction	430.62	418.99	427.21	35.5	34.8	35.9	12.13	12.04	11.90
Retail Trade**	265.65	276.80	274.12	33.0	34.0	33.8	8.05	8.20	8.11
Wholesale Trade	396.81	388.32	393.90	38.6	38.6	39.0	10.28	10.06	10.10

Estimated Hours and Earnings of Production Workers in Selected Industries Pima County

INDUSTRY	AVERAGE WEEKLY EARNINGS			AVERAGE WEEKLY HOURS			AVERAGE HOURLY EARNINGS		
	OCT.* 1987	SEP. 1987	AUG. 1987	OCT.* 1987	SEP. 1987	AUG. 1987	OCT.* 1987	SEP. 1987	AUG. 1987
*****FOR PIMA COUNTY*****									
Manufacturing	364.02	360.04	356.66	39.1	37.7	38.6	9.31	9.55	9.24
Copper Mining	519.57	526.26	511.24	41.8	41.8	41.7	12.43	12.59	12.26
Construction	383.82	359.62	367.37	37.3	35.5	36.7	10.29	10.13	10.01
Utilities	561.46	554.60	579.83	41.9	40.9	42.2	13.40	13.56	13.74

* Preliminary

** Excludes eating and drinking places.

NOTE--These estimates are based on a sample of full and part-time production and related employees whose payroll and hours are reported for the pay period which includes the 12th of the month. Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

--Arizona Department of Economic Security, Research Administration. (1972 SIC, 1/87)

Change in Publication Policy

Budget constraints have forced us to modify our policy in regard to distributing free copies of our Labor Market Information publications. Effective December 1, 1987, we will allow only one complimentary copy of any publication to be given to a user. Multiple copies will have to be purchased from the Research Administration at nominal charge to help cover the cost of printing. A revised price list and order form will be available from this office after December 1. Organizations finding that these prices create a financial hardship may contact the manager of the Economic Analysis Unit. Quantities for sale are subject to availability of copies on hand. With the exception of the OIS Users' Manual, there will continue to be no charge for any OIS or ASOICC publication. To receive a price list and order form, please write to the address on the back of this newsletter or call (602) 255-3871.

Arizona's Top Private Companies

Who are the largest private companies in Arizona? Lists of the largest private firms in the state have been compiled by 1) Arthur Andersen & Co. and 2) Arizona Trend.

The Arizona 100, compiled annually by Arthur Andersen & Co., is a list of privately held firms that were willing to release financial data and have headquarters in the state. Table 1 contains the first 15 firms on the list, based on revenues for the 1986 fiscal year.

The construction industry dominates the list, with the top three companies in terms of employment and four of the top ten in terms of revenues. The industry has 33 percent of all employees represented by the 100 firms. In addition, 14 of the 26 new companies added to the list this year are in construction. Even with the recent

TABLE 1

THE FIRST 15 OF ARIZONA'S
TOP 100 PRIVATE FIRMS
(Ranked by Revenue)

Rank	Company	Location	Industry
1	Shamrock Foods Co.	Phoenix	Wholesale Trade
2	Sundt Corp.	Tucson	Construction
3	Bar-S Foods Co.	Phoenix	Manufacturing
4	Tanner Southwest	Phoenix	Construction
5	Kaibab Industries	Phoenix	Manufacturing
6	Gosnell Builders	Phoenix	Construction
7	O'Malley Lumber	Phoenix	Wholesale Trade
8	Microage Inc.	Tempe	Wholesale Trade
9	Kitchell Corp.	Phoenix	Construction
10	Sun Land Beef Co.	Tolleson	Manufacturing
11	Empire Southwest Co.	Mesa	Wholesale Trade
12	Forever Living Products	Tempe	Other
13	Coventry Financial Inc.	Phoenix	Construction
14	Continental Homes	Scottsdale	Construction
15	Hensley & Co.	Glendale	Wholesale Trade

SOURCE: Arthur Andersen & Co.

TABLE 2

THE FIRST 15 OF ARIZONA'S
TOP 150 PRIVATE FIRMS
(Ranked by Revenue)

Rank	Company	Location	Principal Business
1	Bashas'	Chandler	Groceries; general merchandise; store building; equipment rental
2	Sundt Corp.	Tucson	Construction
3	Shamrock Foods Co.	Phoenix	Food distribution
4	Giant Industries Inc.	Phoenix	Oil refining; service stations
5	Tanner Southwest Inc.	Phoenix	Construction; real estate development
6	Reinalt-Thomas Corp.	Scottsdale	Retail tire sales
7	Lou Grubb Chevrolet Inc.	Phoenix	Car dealership
8	Bar-S Foods Co.	Phoenix	Meat and poultry processing
9	Gosnell Builders	Phoenix	Construction
10	O'Malley Lumber Co.	Phoenix	Retail and wholesale lumber, hardware, building materials
11	United Dairymen of Arizona	Tempe	Milk processing
12	Microage Inc.	Tempe	Microcomputer franchising
13	Kitchell Corp.	Phoenix	Construction
14	Empire Southwest Co.	Mesa	Heavy machinery and equipment sales and leasing
15	Sun Land Beef Co.	Tolleson	Beef slaughtering and processing

SOURCE: Arizona Trend

downturn in construction employment in Arizona, the industry continues to be an important part of the state's economy.

Total employment of these 100 companies was 40,626 in 1986, an increase from 39,598 in the previous year. Nonetheless, revenues declined from $6.33 billion to $6.25 billion. Productivity, defined as revenues per employee, also dropped from $159,857 to $153,990.

The home base of 59 firms on the Arizona 100 list is Phoenix, while 12 are located in Tucson, seven in Scottsdale, five each in Glendale and Mesa, four in Tempe, two in Chandler, and one each in Casa Grande, Gilbert, Morristown, Rillito, Sun Lakes, and Tolleson.

The other list of top companies was prepared by Arizona Trend. The magazine's first list of the top 150 private companies in Arizona was compiled from research on more than 350 Arizona-based private firms. The first 15 of these 150 top firms are listed in Table 2.

The magazine also found construction firms to have a major impact on the state, with four of the top 13 companies in that industry. Other prosperous sectors of the economy include food wholesalers, retail grocery stores, and auto dealers. Interestingly, only two computer-related firms are in the top 40.

Barbara Keene

SOURCES:

Bob Christman, "Arizona's Top Firms Ranked," Arizona Daily Star, October 8, 1987.

Shawn Dahl, "Arizona's Top 150 Private Companies, Arizona Trend, September 1987.

Francie Noyes, "Arizona's Builders Rule Business Roost," The Arizona Republic, October 8, 1987.

New Developments

"New Developments" is featured each month as a service to employers and job seekers. It is a compilation of public announcements of the more significant new construction, grand openings, major hirings and layoffs, and other employer events that have special significance for Arizona labor markets. The announcements are paraphrased and otherwise edited from articles published in newspapers and other periodicals from throughout the state. "New Developments" is limited to space available, and no attempt is made to compile an exhaustive list of all such events that have occurred during the month.

ARIZONA BUSINESSES - Business Week has ranked the best small companies in the country based on three-year sales growth, earnings growth, and return on invested capital. All of the firms have annual sales less than $150 million, a current market value greater than $1 million, and a current stock price greater than $1. Banks, insurers, real estate firms, and utilities are excluded.

One Arizona firm, Inertia Dynamics, was ranked 43 out of the 100 companies on the list. The Chandler business makes gas-powered weed trimmers.

GAMING - Construction has begun on a $65 million, 468-room hotel-casino in Laughlin, Nevada. The Mexican-theme casino is being built by Harrah's on a rugged, out-of-the-way piece of desert.

RETAIL TRADE - About 250 people in Arizona will be out of work as a result of Babbitt Brothers Trading Co. selling its department store division. The division, which would have entered its 98th year in business, has been losing money for several years. Eight stores statewide will close--two in Flagstaff and one each in Kingman, Yuma, Winslow, Page, Prescott, and Cottonwood.

A.J. Bayless Markets Inc. has closed six Phoenix stores because of changing market conditions. The supermarkets were located at 16th Street and Camelback, 27th Avenue and Northern, Seventh Street and Coral Gables, Seventh Avenue and Bethany Home, Seventh Street and Glendale, and Third Street and Dunlap.

On the other hand, the company has opened two more of its A.J.'s Fine Food stores in the Valley. Both of the "upscale" stores offer a variety of domestic and imported specialty items and regular groceries. One store, located at the Mercado in Scottsdale, offers a fruit and juice bar, specialty accessories, a spirits department, and a deli. The other new store, in Uptown Plaza in Phoenix, has a catering service, floral service, and an offering of cold entrees with seating for lunch-time customers.

AIRCRAFT MAINTENANCE - Dalfort Corp. of Dallas has begun providing heavy maintenance for narrow-body transport carriers at the Phoenix-Goodyear Municipal Airport. Up to 500 people could be employed in five years. Most of the work will be on Boeing 727 and 737 and DC-8 and DC-9 aircraft.

CONSTRUCTION - Ground has been broken for the new Police Administration Building and Satellite Fire Facility in Scottsdale. The $3.5 million project will consist of a 49,000-square-foot police building and a 3,700-square-foot fire facility on the southwest corner of 91st Street and Via Linda.

Construction is under way on a $3.5 million headquarters for Quadri Corp. in Chandler. The 61,000-square-foot office and industrial-development complex will be located at 320 North McKemy Avenue in the Southpark Business Center. The defense-related electronics manufacturer will consolidate five Tempe offices and manufacturing facilities at the new headquarters when it is completed in the first quarter of 1988.

A $2.88 million contract has been awarded by the City of Phoenix for a construction project at Sky Harbor International Airport. The project will consist of new storage area, the extension of Parking Lot C to the west, the relocation of two metal buildings, and the replacement of some cement pavement.

Flower Court, a $4.5 million office building, is under construction at the northeast corner of 44th Street and Flower in Phoenix. The 26,000-square-foot structure is scheduled for completion in 1988 and will feature a passive solar energy design.

About 160 homes ranging in price from $70,000 to $100,000 will be built by Cardon Homes Corp. at 73rd Avenue and Cholla in Peoria. The single-family subdivision will be known as Mill Run.

Construction is under way on The Forum, a $30 million office building at 6263 North Scottsdale Road in Scottsdale. The three-story, 200,000-square-foot structure will feature office, retail, banking, and restaurant space.

Enserch of Alaska has received a $32.5 million contract to construct the foundation, outlet, and diversion works for the New Waddell Dam, about 35 miles northwest of Phoenix. The work will take about two years to complete.

TOURISM - A visitor profile survey has been conducted by CIC Research Inc. of San Diego for the Phoenix and Valley of the Sun Convention and Visitors Bureau. The survey, conducted between September 1986 and May 1987, covered visitors staying in hotels, motels, or resorts. Findings include the average age of Valley visitors (46.4), the average annual income ($59,000), and the top dislike (traffic). Sixty-two percent visit to attend group meetings or for business and spend an average of $98 per day. Eighty percent plan to return to the Valley.

MANUFACTURING - A record amount of softwood lumber was produced by Arizona sawmills in 1986. According to the Western Wood Products Association, the Arizona output of 409 million board feet had a wholesale value of $147 million. This was an increase from 361 million board feet valued at $125 million in the previous year.

Boeing Co. has awarded a five-year contract worth up to $30 million to Aircraft Gear Corp. of Chandler. With an additional 45 workers by next spring, Aircraft Gear will manufacture slat-actuation devices for the Boeing 767 wide-body twinjet.

Gates Learjet Corp. has received a $16.2 million contract from the Aeronautical Systems Division at Wright-Patterson Air Force Base for four C-21A aircraft. Scheduled for delivery this year, the aircraft will be used by the Air National Guard at Andrews Air Force Base in Maryland.

Simmons USA has opened an assembly plant in the Papago Distribution Center at 43rd Avenue and Van Buren Street in west Pheonix. The bedding manufacturer is expected to eventually employ as many as 55 people.

The Federal Bureau of Investigation has awarded a $133 million contract to Information Technologies Inc. of Scottsdale to connect about 700 separate local area networks to IBM mainframes. More than 8,000 work stations will be involved.

Sunchip Snacks Foods Co. will soon begin making potato chips in the former Cashiers Structural Foam building in Chandler. About 70 workers will be employed.

The Aeronautical Systems Division of the U.S. Air Force has awarded a $2 million contract to Durodyne Inc. of Tucson to develop decoys for F-15 and F-16 fighter aircraft. The decoys will be used in an Air Force camouflage, concealment, and deception program to protect air bases and aircraft.

FINANCE - The CIT Group/Equipment Financing Inc. has established its western regional headquarters at Fountainhead Corporate Park in Tempe. Employing about 60 people, the new headquarters will provide support services to branch offices in Arizona, California, Idaho, New Mexico, Texas, Utah, and Wyoming.

BUSINESS ASSISTANCE - The Mesa Chamber of Commerce, along with the Service Corps of Retired Executives and the Small Business Administration, has established a Small Business Assistance Center. Programs will include seminars and counseling.

RECREATION - Construction has begun on a 35,000-square-foot multipurpose community center at Paradise Valley Park, 40th Street and Union Hills Drive. The $2.3 million center will be designed around a central courtyard and feature a community hall, a gymnasium, showers, exercise and craft rooms, classrooms, a kitchen, and a lounge. Completion is scheduled for late 1988 or early 1989.

TELEVISION - The Valley is being used as the production base for the upcoming ABC mystery/comedy series, Asimov's Probe. Production began October 14 and will continue through December 22, 1987. Each of the six episodes will cost $850,000, with half of the total budget being spent in the Valley. Two-thirds of the production crew and all supporting cast members have been hired locally. The program, starring Parker Stevenson and Ashley Crow, will probably begin airing in January 1988.

COMMUNICATIONS - Phoenix has been chosen by U.S. West Inc. as the headquarters site for a new division, Home and Personal Services. The new division will develop and market telephone products and services for residential customers in a 14-state area. Initially, 150 management and technical people will be employed, but an additional 200 to 300 research and product-development employees will be added during the next five years.

TRANSPORTATION - Amtrak has opened a tri-weekly Tempe stop for its Sunset Limited rail service between New Orleans and Los Angeles. The town had not had passenger rail service for 19 years. Located near Third Street and Ash Avenue, the train station is being renovated, and a restaurant is being added. Tickets from Tempe to Los Angeles cost $75 one way and $105 round trip.

A new $2 million control tower is being constructed at Scottsdale Municipal Airport, located north of Thunderbird Road and east of Scottsdale Road. The 98-foot tower, designed to last 98 years, will improve controllers' depth perception and lessen visual background interference from the McDowell Mountains. The Federal Aviation Administration is paying for the construction which will be completed in mid-1988.

HOTELS - Continental Inns Inc., based in California, soon will begin construction of an $8.5 million, 163-room Howard Johnson hotel in Phoenix. The new hotel will be located near Sky Harbor International Airport.

EDUCATION - The University of Arizona in Tucson has received more than $6 million in donations toward a new building for the College of Business and Public Administration. Construction of the $19 million, 180,000-square-foot McClelland Hall will be completed in mid-1990.

JOB GROWTH - NPA Data Services Inc. has reported that Maricopa County will be fifth and Pima County 37th among all counties in the nation in the amount of job growth between now and the year 2000. Los Angeles County will lead the nation with 805,000 jobs, followed by Orange County, California with 621,000; Harris County, Texas with 560,000; and Dallas County, Texas with 428,000. Maricopa will have 403,000 new jobs and Pima 113,000.

Phoenix ranks fifth among U.S. metropolitan areas in growth of high tech employment during the past seven years, according to a Grubb & Ellis report. High tech employment growth in Phoenix outpaced total employment growth by an average 2.4 percent annually compared with a 2.3 rate for the country.

DEVELOPMENT - The Glendale City Council has approved a proposal to redevelop 4.2 acres in the downtown area into offices and retail and service businesses. The Super Block project site involves one and a half blocks bounded by Glendale Avenue on the south, Glenn Drive on the north, 57th Avenue on the east, and an alley between 57th Drive and 58th Avenue on the west. The proposal includes two buildings of at least four stories and 65,000 square feet constructed in two phases. The site now is occupied by two banks, school district offices, stores, parking space, and vacant offices.

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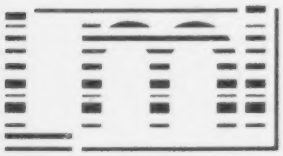

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ARIZONA LABOR MARKET INFORMATION NEWSLETTER

Vol. XII No. 1
January 1988

Unemployment Rate

Seasonally Adjusted
November*

ARIZONA	5.7%
Maricopa Co.	4.8%
Pima Co.	4.7%
UNITED STATES	5.9%

Consumer Price Index

National-October 1987
1967 - Base Year

Wage Earner/Clerical
Worker - 340.0
% Chg. Yr. Ago 4.6

All Urban - 345.3
% Chg. Yr. Ago 4.5

Phoenix-3rd Qtr. 1987
1977 - Base Year

All Urban - 201.7
% Chg. Yr. Ago 4.1

Tucson-3rd Qtr. 1987
1st Qtr. 1983 - Base Qtr.

All Urban - 120.6
% Chg. Yr. Ago 3.7

* Preliminary

How Unemployment Is Measured

Robert Burton, an English clergyman, wrote in 1621, "Employment is so essential to human happiness that indolence is justly considered the mother of misery." Today, the single most important statistic used to measure labor market conditions is the unemployment rate. It is often used to assess the hardship experienced by workers who are willing to work and are available for work, but who are unable to find jobs. That is, the higher the overall unemployment rate, the harder it is for each individual who wants a job to find work. For example, college students find it easier to find after-school and summer jobs when the unemployment rate is low than when it is high. The following section will discuss how the government measures the unemployment rate.

Unemployment in Arizona is usually shown as a percent of the labor force, with that percent being called the unemployment rate. Finding the unemployment rate requires two absolute numbers: the number of those in the labor force and the number of unemployed. The rate is found by dividing the number unemployed by the number in the labor force.

To gather labor force data, the U.S. Bureau of Labor Statistics (BLS) makes a monthly survey of some 60,000 households. The assembling and processing cost of this survey is estimated at $1.5 million per month.

Arizona Department of Economic Security
— Moving People Toward Self-Sufficiency

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The households that are included in the survey represent a stratified sample in proportion to the population distribution in a decennial (ten-year) population census conducted by the Bureau of the Census.

The formula used by BLS to identify the labor force starts with all residents within the United States and makes the following subtractions: (1) all residents under the age of 16, (2) all residents who are institutionalized (e.g., in prison), and (3) all residents who are not employed and not looking for work. For example, a college student who had not looked for work within the last four weeks would not be in the labor force, but one who had looked for work within the last four weeks could be. A housewife not interested in working outside the home would not be in the labor force. Also, four weeks after an unemployed worker gives up looking for work, he or she is dropped from the labor force.

The employed include four groups: (1) those working full time for pay; (2) those working part time for pay; (3) those working at least 15 hours per week, without pay, in a family business; and (4) those who have a job but are not working because they are on vacation, ill, involved in a labor dispute, prevented from working by bad weather, or off for personal reasons. A person who works two jobs is only counted once as employed.

To be unemployed, a person must meet four requirements: (1) be in the labor force; (2) be jobless; (3) have looked for work in the last four weeks or, if not looking, be on a union or professional register for work, be waiting for recall from a layoff, or be starting a job within 30 days; and (4) be available for work.

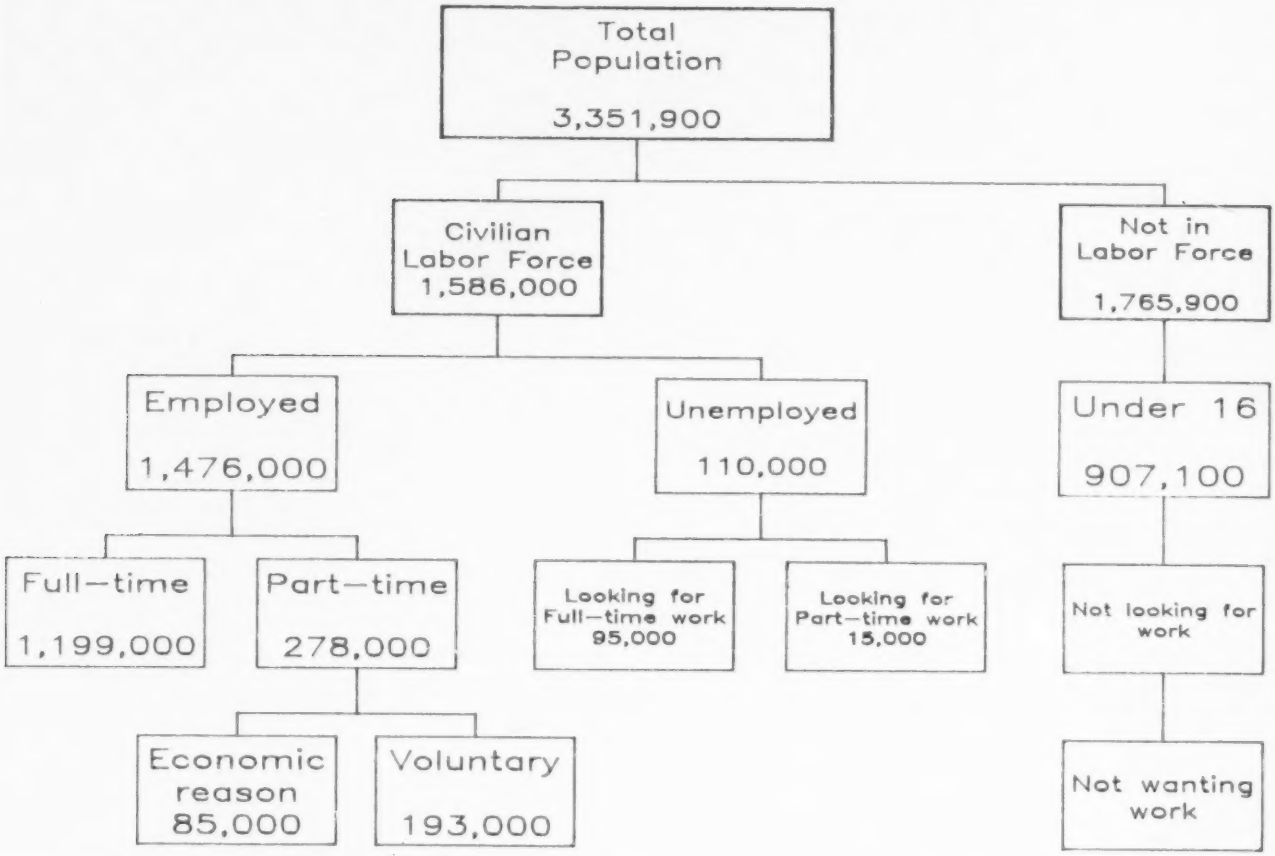
The 60,000-family sample, out of 84 million families, may seem small, but statisticians consider it more than adequate for an estimate of national employment and unemployment. It is less than adequate for most state or substate geographic breakdowns, however. The sample is taken in only 629 geographic areas, including less than one-third of the counties and cities in the United States. As a result of that geographical distribution, the sample is considered to be statistically reliable for only the ten largest states. The survey data for the other 40 states must be supplemented by unemployment insurance claim information for reliable state unemployment estimates.

An Arizona labor force schematic for 1986 is shown on the opposite page. In that year, 1,586,000 (47.3 percent) people were in the civilian labor force, out of a total population of 3,351,900. The remaining 1,765,900 (52.7 percent) were not in the labor force. Out of this number, 51.4 percent were under the age of 16 and the remaining 48.6 percent were either not looking for work or not wanting work for other reasons.

Of the total labor force of 1,586,000, 93.1 percent were employed and 6.9 percent were unemployed. More than 81 percent of the employed people were working full time and about 19 percent were working part time. The reason for the part-time work was either economic or voluntary.

Therefore, in 1986, the size of the labor force was less than half the size of the population. However, the percentage of the total population participating in the labor force has been consistently increasing for more than a decade. (Refer to table on page 3.) The higher participation rates are largely a result of a higher proportion of working women. The population increase,

1986 LABOR FORCE SCHEMATIC



NOTE: Totals may not add due to rounding.

ARIZONA LABOR FORCE PARTICIPATION RATES
IN SELECTED YEARS
(In Thousands)

Year	Civilian Noninstitutional Population, 16 and over	Labor Force	Participation Rate
1986	2,450.0	1,586.0	64.7
1985	2,354.0	1,477.0	62.7
1984	2,255.0	1,441.0	63.9
1983	2,173.0	1,387.0	63.8
1982	2,096.0	1,338.0	63.8
1980	2,026.0	1,240.0	61.2
1978	1,669.0	1,077.0	64.5
1976	1,583.0	988.0	62.4

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics.

mostly due to inmigration from midwestern states, has also influenced the participation rate in recent years.

Many people believe, however, that the unemployment rate does not measure hardship precisely enough because of the following reasons: (1) it does not distinguish between full- and part-time work, (2) it does not give any consideration to the worker who is employed but has skills for a higher-level job, and (3) it does not include the discouraged workers in the labor force. Others argue that the biggest drawback to the use of the unemployment rate as an indicator of hardship is the increase in unemployment insurance benefits. Because high levels of unemployment compensation enable longer periods of search for a job, some of the measured unemployment may be voluntary.

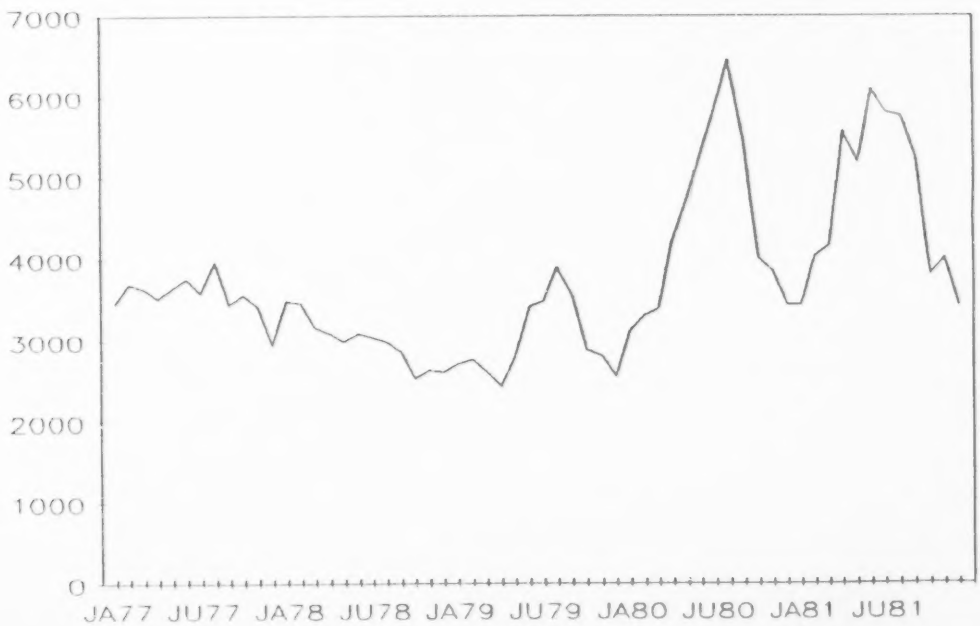
The labor force statistics reported every month are a snapshot at a point in time. People, however, continuously move in and out of the labor force for various reasons. One of the major reasons for this fluctuation is the seasonal nature of employment. The following article will discuss Yuma County, where a significant amount of the labor force is engaged in seasonal employment.

Jalal Ahmad

Unemployment in Yuma County: Why Is It So High?

Yuma County's labor force statistics are unique in at least two ways: (1) Yuma has strong seasonal employment, and (2) it has a common border with the state of California and the country of Mexico. Due to its normal seasonal activities in agriculture, county unemployment tends to rise in summer and decline in winter months. Besides agriculture, tourism is another major industry that forces employ-

YUMA COUNTY UNEMPLOYMENT
JANUARY 1977 — DECEMBER 1981



ment, mostly in trade and services, to swing. Ironically for Yuma County, tourism activities reach low levels during the summer months as does agriculture. For example, in trade, employment has declined on average by more than 1,100 between March and August of each year since 1983.

To add to normal seasonal activities, government employment also goes down during the summer months when county schools and colleges have few federal work-study program participants. It is an unfortunate fact that the employment peaks and troughs of industries that are affected by the seasons coincide in Yuma County. Due to these normal seasonal patterns, the county finds its unemployment higher in the summer than in the winter.

Usually, we adjust county unemployment rates for seasonality so that the normal seasonal patterns do not affect the unemployment rates. Unfortunately, we have been unable, since 1983, to produce seasonally adjusted unemployment rates for Yuma County. In 1983, La Paz County was created out of part of Yuma County. Since five years of data are needed to calculate seasonal factors, we will finally have seasonal unemployment rates after 1987's data are in.

The rise and fall in unemployment statistics, due to seasonal factors, became more apparent as agricultural workers were covered by Unemployment Insurance (UI) beginning in 1978.

The common international and state borders affect employment and unemployment statistics in various ways. For example, those who work in Yuma and live outside of Yuma are not counted in its labor force because the employment number is adjusted for residence. Unemployment, on the other hand, is subject to problems in establishing residence. This is particularly true of the agricultural component that is migratory in nature. If residence addresses of UI claimants are not accurate, then a distortion occurs in the ensuing unemployment count. This problem, because of the industry dynamics, is a complex one that is not easily resolved.

Looking back to the recent past, two important laws have been passed which brought these changes: 1) coverage of agricultural workers with Unemployment Insurance and (2) waiver of residency requirement to qualify for UI benefits. Both of these laws have impacted labor force statistics in Yuma.

The data reveal that until agriculture was covered by UI there were hardly any seasonal changes in the number of unemployed. In other words, unemployment statistics were very stable. But with the coverage of agriculture by UI, unemployment figures started to show the ups and downs due to normal seasonal activities. (Refer to graph on page 4.)

The effects of these two laws are more apparent with UI insured claims data. UI claims and unemployment figures fluctuate very closely. During the summer, the total number of claimants and unemployment both go up. For example, in the border town of San Luis in July 1987, total claims went up to 1,876, with 840 claims being filed by aliens. While in September 1987, with the beginning of the agricultural season, that number fell to 942 with 368 filed by aliens. These claims figures seem to be very high compared to the city's small population of 2,735 in 1985. Similarities were also revealed in data for other border towns like Somerton.

Efforts are already being made by the UI administration to better measure nonresident aliens. Many problems will arise, however, in verifying the residency of UI claimants, such as the confidentiality rules that UI currently follows. To improve accuracy of these statistics, other measures are also under consideration. First, seasonally adjusted unemployment figures will be calculated in early 1988 (five years after the split of La Paz from Yuma) to mitigate the seasonal impact on these statistics. Second, to better measure employment and the number of displaced workers in the agricultural sector, further efforts will be made to develop a comprehensive list of agricultural employers. To accomplish that, discussions are under way with the Bureau of Labor Statistics (BLS)

and the Arizona Department of Water Resources. Third, rural economic statistics, particularly employment by occupation and industry, would be very helpful in analyzing the local economy. A request for state funds has already been made to accomplish that goal. Fourth, gaining access to the Current Population Survey (CPS), improving its coverage and accuracy, and providing increased funding to add households to the CPS would definitely improve the overall accuracy of local area unemployment statistics.

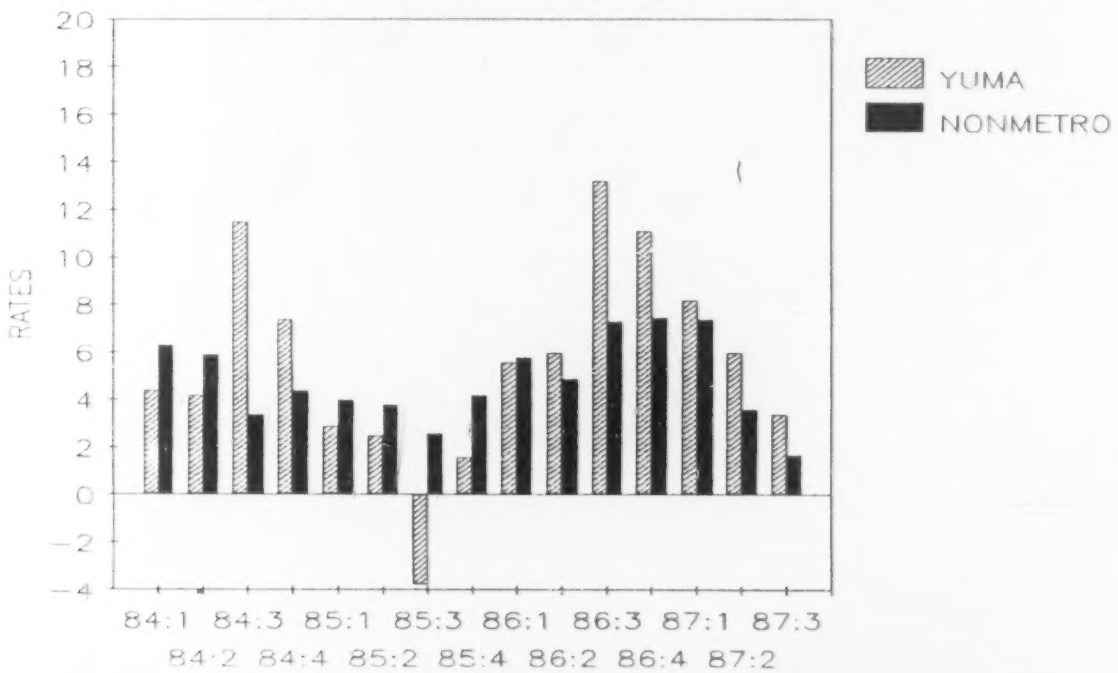
Should Yuma Be Concerned?

To evaluate the performance of Yuma's economy, growth in wage and salary employment would be a better indicator than unemployment. The Arizona Department of Economic Security (DES) Research Administration in cooperation with BLS collects wage and salary employment data by industry. The data in the graph below reveal that Yuma County has registered positive wage and salary employment growth since its split with La Paz except for one quarter. Also, the county has grown at a higher rate than the average of all of Arizona's nonmetropolitan counties together.

Looking into the future, it can be expected that tourism in the county will grow. Growing activity along Interstate 8 will contribute to an increasing level of employment opportunities in services and trade. Construction employment should also grow steadily in the future. Over $24 million will be spent constructing new facilities at the Marine Corps Air Station in late 1987 and 1988. Other major construction projects include Cibola High School, scheduled for completion by August 1988, and the $20 million renovation and expansion of the Yuma Regional Medical Center.

Manufacturing employment has declined over the last 12 months ending in October of 1987, but the trend is expected to change. Because Yuma is situated on the Mexican border, businesses have been investigating the Yuma area as a good prospect for twin manufacturing plants. Firms also find the area's climate, low wages, and proximity

YUMA VERSUS NONMETRO
WAGE AND SALARY EMPLOYMENT
GROWTH RATES, 1984:1 — 1987:3



to California markets attractive. In the future, manufacturing jobs should increase.

The outlook for Yuma County is favorable as it changes from an agricultural-based economy to a more industrialized economy. As the economy relies less heavily on seasonal agriculture, the unemployment statistics will also become more stable. In addition, upcoming seasonal adjustment will reduce the effects of multiindustry seasonal changes. Underlying real economic change or stability will then become more apparent.

Jalal Ahmad

Annual Pay in Metropolitan Areas

The Phoenix metropolitan area ranked 75th among all U.S. metropolitan areas in the amount of annual pay received by employees in 1986. The Tucson area was ranked 169th.

Data released by the U.S. Bureau of Labor Statistics indicate that average annual pay in metropolitan areas increased 4.2 percent from 1985 to 1986. The average in 1986 for 299 metropolitan areas was $20,691, up from $19,851 in the previous year. (Refer to the November 1987 issue of this newsletter for data by state and industry.)

The metropolitan area of Anchorage, Alaska, led the nation with the highest average annual pay at $28,742; followed by Flint, Michigan, at $26,638; San Jose, California, at $26,365; and New York, New York, at $26,241. Santa Cruz, California, experienced the largest percentage growth in pay from 1985 to 1986 with an increase of 7.8 percent.

On the other hand, average annual pay declined in 17 areas with the largest decrease (4.9 percent) occurring in Kenosha, Wisconsin. The lowest pay in 1986 was found in Jacksonville, North Carolina, with $12,859.

Both of Arizona's metropolitan areas showed increases in average annual pay. The Phoenix area experienced an increase of 5.1 percent from $18,769 in 1985 to $19,730 in 1986, while the average annual pay of employees in the Tucson metropolitan area grew 3.5 percent from $17,351 to $17,951. (See table on page 8 for data from selected metropolitan areas.)

These data are compiled from reports submitted by employers covered by Unemployment Insurance (UI) laws for over 98 million workers nationwide. Included in the payroll data are bonuses, the cash value of meals and lodging when supplied, tips and other gratuities, and employer contributions to certain deferred compensation plans such as 401(k) plans.

Exclusions from UI coverage include most agricultural workers on small farms, members of the Armed Forces, elected officials in most states, most railroad employees, most domestic workers, most student workers at schools, employees of some small nonprofit organizations, self-employed individuals, and unpaid family members.

Certain factors should be taken into consideration when comparing average annual pay levels between metropolitan areas. Average annual pay is computed by dividing total annual payrolls of employers by the average monthly employment. The result is affected by the composition of employment in the area by occupation, industry, and hours of work.

The term "metropolitan areas" used in this article refers to Metropolitan Statistical Areas (MSAs), as defined by the U.S. Office of Management and Budget. The geographic boundaries of Arizona's two MSAs--Phoenix and Tucson--correspond to the Maricopa and Pima county boundaries.

Barbara Keene